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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,179	02/15/2006	Holger Schuppan	EFIM0335	1937

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92 NATOMA STREET, SUITE 211
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EXAMINER

SQUIBB, BARBARA D

ART UNIT	PAPER NUMBER
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2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,179	Applicant(s) SCHUPPAN, HOLGER	
	Examiner BARBARA D. SQUIBB	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,5-10,14,24,28,29,33-35 and 39-42 is/are rejected.
- 7) ☒ Claim(s) 2-4,11-13,15-23,25-27,30-32 and 36-38 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/31/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

2. Claims 6, 21, 23, and 24 are objected to because of the following informalities:
Claim 6 does not convey a clear and complete thought and requires clarification.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6, 7, 10, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Harrington (6,178,007).

Regarding claim 1, Harrington discloses a printing system (**Abstract**) wherein printing a calibration print by means of the printing device (**Abstract**), the calibration print having a plurality of measuring areas each with different color mixture relationships (**col. 3 lines 7-9**); spectrophotometric measurement of the measuring areas (**col. 5**

Lines 16-18), producing from the measurement results a color profile (**col. 3 lines 14-31**), the spectrophotometric measurement being carried out at a plurality (N) of measuring times (T_n) (**continuously**) (**col. 5 lines 12-15**), wherein said color profile is produced as an extended color profile which comprises a description of the behavior over time of the calibration print (**col. 5 lines 34-41**): wherein the extended color profile comprises a plurality of color profiles each being associated with a measuring time (T_n) (**col. 5 lines 34-41**); and setting the color mixture relationships of the printing device on the basis of the extended color profile (**col. 5 lines 58-60**).

Regarding claim 6, Harrington further discloses wherein before the setting of the color mixture relationships by using the color profiles associated with the individual measuring times (T_n) (**col. 5 lines 34-41**) and belonging to the color profile extended by a description of the behavior over time (**col. 5 lines 34-41**), further color profiles at times other than those actually measured being determined by extrapolation and/or interpolation (**col. 3 lines 63-67 – col. 4 lines 1-3 & lines 43-50**).

The examiner interprets claim 6 to mean the inclusion of color values updating the profile to include those upon which a calibration value has been assessed based upon interpolation or extrapolation.

Regarding claims 7 and 29, Harrington further discloses wherein color mixture relationships of the printing device (**col. 3 lines 7-9**) being set by using the extended

color profile in such a way that, after a specific time period has elapsed (**col. 5 lines 34-41**), predetermined color values of the print are obtained (**col. 3 lines 14-31**).

Regarding claim 10, Harrington discloses a printing device (**Abstract**) in which color mixture relationships of the printing device can be set by means of a color profile (**Abstract**), said printing device comprising means for spectrophotometric measurement of measuring areas (**col. 5 Lines 16-18**) of a calibration print having a plurality of measuring areas with different color mixture relationships for producing the color profile (**col. 3 lines 14-31**), the means for spectrophotometric measurement being designed such that the spectrophotometric measurement of the measuring areas can be carried out at a plurality (N) of measuring times (T_n) (**continuously**) (**col. 5 lines 12-15**), producing a color profile which is extended by a description of the behavior over time (**col. 5 lines 34-41**) and which comprises a plurality of color profiles each being associated with a measuring time (T_n) (**col. 5 lines 34-41**); and said color mixture relationships of the printing device are being adjustable on the basis of the color profile extended by a description of the behavior over time (**col. 5 lines 58-60**).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 8, 9, 14, 24, 28, 33-35, 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington (6,178,007) in view of Allen et al 2002/0180996).

Regarding claim 5, Harrington does not teach wherein the color profile extended by a description of the behavior over time having the color profiles produced at the individual measuring times (T_n) in each case with a time index which is greater the shorter the time since the calibration print was printed out.

Allen teaches the behavior **(settling)** over time **(from minutes to hours, paragraph 36)** having the color profiles produced **(paragraph 38)** at the individual measuring times (T_n) in each case with a time index which is greater **(“Some color shift may occur in as little as five minutes, but typically a longer period of aging is required for a useful measurement.”, paragraph 36)** the shorter the time since the calibration print was printed out **(paragraph 36)**.

Harrington and Allen are combinable because they are from the same field of endeavor of print system calibration **(“The invention relates to the calibration of multi-color imaging systems for the accurate production of desired colors in the imaging system output,” Allen at paragraph 1)**.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the calibration technique as taught by Harrington by also taking into consideration the test print's age **(settling)** as taught by Allen.

The motivation for doing so would have been to more precisely update the color profile based on changes in the test print **(Allen, paragraphs 13-14)**.

Therefore, it would have been obvious to combine Harrington with Allen to obtain the invention as in claim 5.

Regarding claims 8, 34 and 35, Harrington does not explicitly teach where the test print's age is determined. Harrington teaches where each table value is updated based calibration adjustments that accounts for drifts and changes in the machine (**col. 5 lines 29-34**).

Allen teaches taking into account the age (**settling**) (**paragraphs 14 & 36**) of a print being determined by measuring a color profile of the print (**paragraph 35**).

Harrington and Allen are combinable because they are from the same field of endeavor of print system calibration (***"The invention relates to the calibration of multi-color imaging systems for the accurate production of desired colors in the imaging system output," Allen at paragraph 1***).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the calibration technique as taught by Harrington by also taking into consideration the test print's age (**settling**) as taught by Allen.

The motivation for doing so would have been to more precisely update the color profile based on changes in the test print (**Allen, paragraphs 13-14**).

Therefore, it would have been obvious to combine Harrington with Allen to obtain the invention as in claims 8, 34 and 35.

Regarding claims 9, 14, and 39-42, Harrington does not explicitly teach a variety of imaging systems.

Allen teaches where a color inkjet printer is being chosen as the printing device **(paragraph 42)**.

Harrington and Allen are combinable because they are from the same field of endeavor of print system calibration (***“The invention relates to the calibration of multi-color imaging systems for the accurate production of desired colors in the imaging system output,”*** Allen at paragraph 1).

At the time of the invention it would have been obvious to one of ordinary skill in the art to extend the print apparatus as taught by Harrington to include the variety **(inkjet)** of printing systems as taught by Allen **(paragraph 42)**.

The motivation for doing so would have been to provide greater scope of devices to meet the varying consumer needs.

Therefore, it would have been obvious to combine Harrington with Allen to obtain the invention as in claims 9, 14, and 39-42.

Regarding claim 24, Harrington further discloses wherein before the setting of the color mixture relationships by using the color profiles associated with the individual measuring times (T,) **(col. 5 lines 34-41)** and belonging to the color profile extended by a description of the behavior over time **(col. 5 lines 34-41)**, further color profiles at times other than those actually measured being determined by extrapolation and/or interpolation **(col. 3 lines 63-67 – col. 4 lines 1-3 & lines 43-50)**.

The examiner interprets claim 24 to mean the inclusion of color values updating the profile to include those upon which a calibration value has been assessed based upon interpolation or extrapolation.

Regarding claim 28, Harrington further discloses wherein color mixture relationships of the printing device (**col. 3 lines 7-9**) being set by using the extended color profile in such a way that, after a specific time period has elapsed (**col. 5 lines 34-41**), predetermined color values of the print are obtained (**col. 3 lines 14-31**).

Regarding claim 33, Harrington does not explicitly teach where the test print's age is determined. Harrington teaches where each table value is updated based calibration adjustments that accounts for drifts and changes in the machine (**col. 5 lines 29-34**).

Allen teaches taking into account the age (**settling**) (**paragraphs 14 & 36**) of a print being determined by measuring a color profile of the print (**paragraph 35**) and calculating (**comparing the predicted color to the desired color, paragraph 38**) the associated color value by using the extended color profile (**correction function, paragraph 38**).

Harrington and Allen are combinable because they are from the same field of endeavor of print system calibration (***“The invention relates to the calibration of multi-color imaging systems for the accurate production of desired colors in the imaging system output,”*** Allen at paragraph 1).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the calibration technique as taught by Harrington by also taking into consideration the test print's age (**settling**) as taught by Allen.

The motivation for doing so would have been to more precisely update the color profile based on changes in the test print (**Allen, paragraphs 13-14**).

Therefore, it would have been obvious to combine Harrington with Allen to obtain the invention as in claim 33.

Allowable Subject Matter

7. Claims 2-4, 11-13, 15-23, 25-27, 30-32 and 36-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Referring to claims 2-4, 11-13, 15-23, 25-27, 30-32 and 36-38, the prior art searched and of record neither anticipates nor suggests where the interval of time between successive calibration measurements increasing based on when the calibration print was made nor that the interval of time has logarithmic dependence where a natural logarithmic function is selected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA D. SQUIBB whose telephone number is (571)270-5082. The examiner can normally be reached on M-Th, 7am-4pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Haskins L. Twyler can be reached on 571-272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Barbara D Squibb
Examiner
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